

CACS-0017

CLEAN SET OF CLAIMS

1. A method of sensing the concentration of an oxidising gas in a gas mixture using a semiconductor gas sensor having a resistivity sensitive to the oxidising gas, which comprises increasing the sensor operating temperature to a first temperature to allow the sensor surface to reset then decreasing the sensor operating temperature to a second temperature and analysing the resultant resistance of the sensor at the second temperature.
2. A method according to claim 1 in which the first temperature is 400 to 800°C and the second temperature is 200 to 500°C.
3. A method according to claim 1 wherein the sensor resistance is analyzed as a function of time.
4. A method according to claim 1 in which the oxidising gas is NO₂, NO, Cl₂, or O₃.
5. A method according to claim 1 in which the sensor is a layer of WO₃, IN₂O₃, MoO₃ or SnO₂.
6. A method according to claim 5 wherein the sensor is a layer of WO₃ and the oxidising gas is O₃.
7. A method according to claim 2 wherein the sensor resistance is analyzed as a function of time.